Comfort Digisystem User manual

SecureStream Technology

Comfort Digisystem

Microphone DM05

North America / English

Comfort Audio
HEAR THE FUTURE

User manual

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1) Introduction to the Comfort Digisystem

Thank you for choosing Comfort Digisystem. The products are easy to use, whether you use a hearing aid or not.

Before using the product, please read this User manual carefully.

Using the Microphone DM05 transmitter, the signal is transferred digitally, resulting in an excellent clear sound. The Comfort Digisystem products feature SecureStream Technology – a unique, patented digital technology allowing eavesdrop-secure radio transfer in real time.

2) Regulatory information

Comfort Digisystem products are not to be used as a substitute to the hearing aids and should be used in accordance with the specifications and recommendations provided by your physician.

It is recommended that customers keep the volume control in the lowest position, when turning on the device. If not, the sound could potentially cause harm to the customers' hearing.

Comfort Audio is not liable for damages arising from usage of the equipment not in accordance with the instructions provided by Comfort Audio. Comfort Audio shall not be liable for performance problems and/or damages caused in any way by customer's modification of any part of the equipment.

Federal Communications Commission Statement, This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.
FCC ID: UOJ-DG01T

Industry Canada, This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:
(1) this device may not cause interference, and
2) this device must accept any interference, including interference that may cause undesired operation of the device.
IC ID: 6769A-DG01T

ETL
Conforms to UL Standard for Safety for Audio, Video and Similar electronic apparatus – Safety Requirements UL 60065, Issue:2003/06/30 Ed:7 Rev:2007/12/11
Certified to CSA Standard for Safety for Audio, Video and Similar electronic apparatus – Safety Requirements CAN/CSA-C22.2 No. 60065:03, Issued 2003/04/01 Ed:1 Amendment 1:2006
Intertek ETL Control number: 4002355

WARNING!
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

DANGER!
DO NOT USE the **COMFORT DIGISYSTEM products** if you have a **PACEMAKER** or other implanted device. The Comfort Digisystem products could cause the pacemaker or other implanted device to malfunction and cause serious injury or death.

3) Functions - Microphone DM05

4) Included accessories

- Charger A11
- Split cable
- Necklace clip on

For other accessories, please visit our website
www.comfortaudio.us

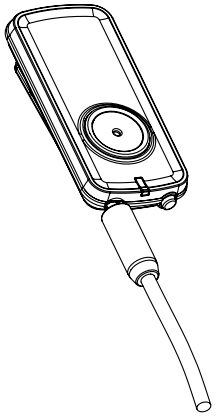
5) Getting started

Charging

The Microphone DM05 is chargeable. Charge the DM05 at least two hours before using it the first time. An empty battery is fully charged within two hours.

During charging, the function indicator shows red. Once the function indicator shows green, the unit is fully charged and switches to automatic float charging. The unit is automatically switched off when charging.

INPUT 5V ⎓ 220mA



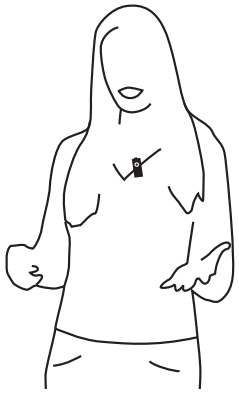
Connecting a charger to the Microphone DM05

Please note:

Only use the charger supplied by Comfort Audio. Changing the battery without the assistance of an authorized dealer will void the Limited Warranty.

First time use

Switch on the transmitter by pressing the On/Off button for around two seconds. Function indicator ON.



The Microphone DM05 is a microphone for closer range. It works best within approx. 12 inches (30 cm).

Attach the DM05 to your clothes using the clip. The DM05 is supplied with a neck pendant, which can be connected to the unit to make sure that you do not drop it.

WARNING!

The necklace should not be used if there is a risk of getting stuck, e.g. in a machine or other objects.

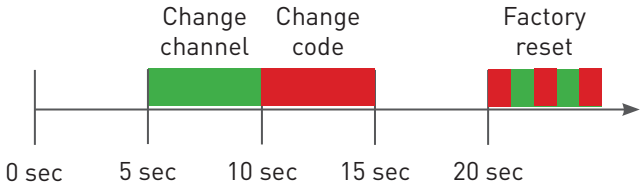
6) Settings

As the DM05 does not have a display/menu, the unit's functions are controlled by means of the pairing button. The current function is displayed by the function indicator.

In addition to the pairing functions (see section *Pairing*), there is also the facility to activate three modes.

To do this, press the pairing button and hold it down immediately after starting up the unit (within two seconds).

A selected mode can always be cancelled by switching off the DM05 and starting it up again.



Change channel

When the pairing button is held down for five seconds, the function indicator shows a constant green light.

If you release the pairing button when the function indicator is green, the *Change channel* mode is activated.

Press the pairing button briefly the number of times corresponding to the desired channel (1-10), see section *Radio Range and Channels*.

After a pause of two seconds, the entry process ends and the selected channel is shown by the same number of green flashes in the function indicator.

Change code

If the pairing button is instead held down for ten seconds, the function indicator will switch to a red light.

If you release the pairing button when the function indicator is red, *Change code* mode is activated.

Press the pairing button twice in quick succession to generate a random code, and at the same time the pairing information is transmitted (make sure that other Digisystem units to be paired are activated to receive pairing information).

Five red flashes in the function indicator confirm that the pairing information (channel and code) has been sent.

Factory reset
If the pairing button is instead held down for 20 seconds, the function indicator will switch to an alternating red and green light. The *Factory reset* mode is now activated.

To perform a factory reset, press the pairing button once quickly. The function indicator flashes the number of times corresponding to the channel, see section *Radio Range and Channels.*

The channel and code are now reset to the factory settings.

7) Pair

Microphone DM05 must be paired using the pairing button, see section *Pairing (via pairing button)*.

Pairing
To use a receiver and transmitter together, they must be paired. All transmitters and receivers are default paired at the factory and will work together.
NB! To prevent eavesdropping, a new code key must be generated and transmitted between the units by pairing.

Transmitting/receiving of pairing information along with a new code can be performed from any Comfort Digisystem unit with a display.

To pair units without a display, see sections *Pairing (via pairing button)*.
Pairing information or a new code key can be received by several activated units.

Pairing (via menu)
1. Choose **Communication - Pair**
2. Select **Receive info** on one unit. **Ready to receive pairing info** is shown in the display.
3. Select **New code** on the other unit; select **Yes**.
4. **Generate new code and send info?** is shown in the display. Select **Yes** (Now both the channel and the coding information have been sent, and sound transfer is eavesdrop-secure).
5. To pair another unit into your coded system, select **Send info** instead on one of your paired units.

Pairing (via pairing button)
(The only way of pairing units without a display, with the pairing button)
You can activate the Pairing function via the pairing button.
1. One brief press of the button opens the *Pairing* menu.
2. Two brief presses activate the **Send info** function.
3. One long press activates the **Receive info** function.

Units with both transmitters and receivers built in
Comfort Digisystem units with both transmitters and receivers built-in can be paired separately.

When opening the pairing menu, choose the concerning unit (transmitter/receiver). In units with both transmitters and receivers, the pairing button controls the transmitter.

The transmitter and receiver are paired separately in these units. The code key is always the same for the transmitter and the receiver when these are built-in in the same unit.

The easiest way to get the same code key in the whole Digisystem is to generate a new code key from the combined unit; in that way the built-in receiver gets the same code as the rest of the system.

8) More functions

Function indicator (LED)
The function indicator shows the unit's status depending on its setting.

When the DM05 starts, the function indicator shows which channel is selected (1-10) by flashing green 1-10 times. If another channel has been paired in, this is indicated by the green lamp lighting for four seconds when the unit is started up.

On normal operation the indicator flashes every other second.

During charging the indicator shows red.
When the charging is completed, the indicator shows green.

When the battery gets low, the indicator flashes red every other second.

Once the unit has been set to receive pairing information, the indicator flashes green quickly.

When receiving pairing information, the indicator shows green for four seconds.

When sending pairing information, the indicator flashes red five times.

A constant green light indicates Change channel mode.

A constant red light indicates Change code mode.

An alternating red/green light indicates Factory reset mode.

9) Radio range and channels

The transmitter and receiver have built-in antennas. The radio range between the units is around 100 feet (30 metres). This may however vary depending on the particular environment you are in.

Like all radio systems, Comfort Digisystem communicates on specific channels. If you use two transmitters on the same channel or a neighbouring one, there may be interference. Other electronic equipment can also interfere with radio transmissions.

The channel that you use in your country is perhaps not permitted abroad. Always get in touch with your hearing aid provider in your country in order to find out which channels are permitted in different countries.

Comfort Audio is not liable for unauthorized use of radio waves, such as, but not limited to: interferences with police communication, or strategic communication, military installations etc.

Pre-programmed channels

1. Ch1 – 904.650 MHz
2. Ch5 – 907.050 MHz
3. Ch9 – 909.450 MHz
4. Ch13 – 911.850 MHz
5. Ch17 – 914.250 MHz
6. Ch21 – 916.650 MHz
7. Ch25 – 919.050 MHz
8. Ch29 – 921.450 MHz
9. Ch33 – 923.850 MHz
10. Ch37 – 926.250 MHz

At delivery and factory reset the channel is Ch20 – 916,050 MHz

10) Trouble shooting

The transmitter and receiver do not start
Charge the transmitter and receiver. Remember to press the On/Off button down for 2 seconds to switch the unit on. Check that the charger is connected to the plug socket.

Poor speech intelligibility
The distance between the transmitter and the receiver may be too long. The range is around 30 metres. The distance between the microphone and the person who is talking may also be too long; move the microphone nearer to the person talking.
Try to change channel/environment.

Poor range and interference
In some environments involving, e.g., concrete, iron or sheet metal structures, the range may be reduced. There may also be equipment nearby causing interference. Change channel.

No sound
Check that the transmitter and receiver are set to the same channel.

Loud hissing noise (no sound transfer)
Check that the units are paired.

11) Battery maintenance

The rechargeable products in the Digisystem series are equipped with Li-Pol batteries, ie. the same type of batteries used for most mobile phones and laptop computers on the market today. These types of batteries are able to store large amount of energy in relation to their weight and volume.

The capacity of Li-Pol batteries diminishes during its life cycle. The battery type has no "memory effect", which would mean that you need fully discharge the battery before charging to minimize capacity loss. This means that you can just as well charge the battery often and little, as opposed to seldom and much. Special charging circuits in the Digisystem products protect batteries from overcharging.

The capacity of the Li-Pol batteries deteriorates faster when they subjected to deep discharge. Therefore, all products of the Digisystem are fitted with a function that automatically turns off the product well before deep discharge occurs. Deep discharge may still happen as the battery has a certain self-discharge. A product that is fully or partly charged will with enough time reach a state when the battery deep discharges, unless the charger is connected. To avoid this we recommend that the battery is charged at least every 6 months.

12) Service and warranty

Warranty extension
Comfort Audio Inc. warrants this product sold to the first end user (buyer) against defects in materials or workmanship for the time period and as set forth below. Pursuant to this Limited Warranty, Comfort Audio will, at its own option, either (a) repair the product or the parts determined to be defective, using new or refurbished parts, or (b) provide you with a new, or at our option, a refurbished unit. The repaired or exchanged unit is under warranty for the remainder of the original product's warranty period. The warranty does not include any other direct, indirect or consequential damage or loss, or any third party damages or losses.

This Limited Warranty is for a period of two years from the date of purchase as indicated by an original receipt from a Comfort Audio authorized retailer, dispenser or medical facility. For accessories and batteries, the warranty period is one year as of the date of delivery.

How to make a warranty claim
For warranty service, you must contact the Comfort Audio Customer Service listed below to obtain an RMA (Return Merchandise Authorization) number.
A description of the defect, your name, address and telephone number is required.

Ship the product freight prepaid via UPS or its equivalent, including a copy of the original purchase receipt, any cables, earphones and base/charger unit, in its original packaging or one that offers equal protection. Insure your shipment for loss or damage. Comfort Audio accepts no liability in case of damage or loss en route to our offices.

This Limited Warranty does not cover
Damage from misuse, neglect or normal wear and tear. Products that have been modified. Products purchased or serviced outside the territory. If you purchased your product outside the territory, see your retailer for warranty information.

Product Registration
Please complete, sign and mail the Product Registration Card packed with your unit. It will make it easier to contact you if it ever would be necessary.

Comfort Audio Inc.
350 South Northwest Hwy, Ste 300
Park Ridge, IL 60068 USA

To contact the Comfort Audio Customer Service,
call (847) 656 5450
or by e-mail usa@comfortaudio.com

13) Technical data

Type of transmitter:	SST – SecureStream Technology
Range:	Approx. 100 feet (30 m)
Dimensions:	2.28 x 1.06 x 0.55 inches (58 x 27 x 14 mm) incl. clip
Weight:	0.56 oz (16 g)
Frequency range:	904 - 927 MHz
Antenna:	Built-in
Operating time:	Up to six hours
Battery:	Chargeable Li-Polymer
Charging time:	Approx. two hours
Charger:	5V ⎓ 220 mA
Microphone:	Built-in, omnidirectional

Conforms to ANSI/UL Std.60065

Certified to CAN/CSA Std.C22.2 No.60065:03

Intertek
4002355

The weights, dimensions, capacities, performance ratings and other data in Comfort Audio's brochures, prospectus, circulars, advertisements, price lists and instructions sheets are mentioned only as general information. They are only approximate and shall not bind Comfort Audio.

14) Important safety instructions - Read these before using your product

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not use near any heat sources such as radiators heat registers stoves, or other apparatus (including amplifiers) that produce heat.

8) Do not defeat the safety purpose of the polarized or arounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong.
The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet consult an electrician for replacement of the obsolete outlet. (Only when using polarized plug)

9) Protect the power cord from being walked on or pinched particularly at plugs convenience receptacles. and the point where they exit from the apparatus.

10) Only use attachments/accessories specified by Comfort Audio AB.

11) Unplug this apparatus during lightning storms or when unused for long periods of time.

12) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way such as power-supply cord or plug is damaged liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture does not operate normally or has been dropped.

13) Start listening at a low volume.

14) Too high a volume can seriously damage your hearing.

15) Don't disassemble the product.

16) Should the product break open because of damage, service should only be done by qualified service personnel.

17) Never use a transmitter or receiver set to a nonpermitted frequency. Check with the frequency authority in the country where the equipment is to be used.

18) The product contains sensitive electronic equipment and must be handled carefully.

19) Never charge product in closed, unaired spaces such as handbags, cases or other closed storage bags.

20) Only use batteries and power supply specified by Comfort Audio AB.

21) You must not change the battery yourself; please contact your point of purchase.

22) CAUTION! Danger of explosion if battery is incorrectly replaced.

23) The product shall not be exposed to excessive heat such as sunshine, fire or the like.

24) Products include radio transmitters. Do not use products where it is not allowed to use electronic equipment, e.g. on airplanes.

25) The necklace should not be used if there is a risk of getting stuck, e.g. in a machine or other objects.

26) Keep small parts out of reach of children and animals.Choking hazard if swallowed.

27) Do not leave the product unloaded for too long, the battery could get damaged.

28) Do not keep the product connected to the charger if it is not used for a longer period.

Subject to change

Comfort Audio
HEAR THE FUTURE

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